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Substitute for form 1449A/PTO				<i>Complete if Known</i>	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>				Application Number	Based on 09/678,656
				Filing Date	October 4, 2000
				First Named Inventor	Toshimitsu KONUMA
				Group Art Unit	2871
				Examiner Name	Huyen Le Ngo
Sheet	1	of	3	Attorney Docket Number	0756-7221

U.S. PATENT DOCUMENTS						
Examiner Initials ¹	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
		4,239,345		Berberman et al.	12/16/80	
		4,272,162		Togashi et al.	06/09/81	
		5,258,135		Uchida et al.	11/02/93	
		5,637,672		Rieger et al.	06/10/97	
		5,462,621		Ishii	10/31/95	
		5,298,297		Takei	03/29/94	
		5,250,214		Kanemoto et al.	10/15/93-10/5/93	
		5,189,535		Mochizuki et al.	02/23/93	
		5,172,255		Brosig et al.	12/15/92	
		4,508,427		Ross	04/02/85	
		5,005,952		Clark et al.	04/09/91	
		5,495,355		Konuma	02/27/96	
		4,492,432		Kaufmann et al.	01/08/85	
		5,995,185		Konuma	11/30/99	

FOREIGN PATENT DOCUMENTS							
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		Office ³	Number ⁴				
		JP	03-158823		07/08/91		Full
		JP	63-298220		12/06/88		Abst.
		JP	56-164320		12/17/81		Abst.
		JP	03-031821		02/12/91		Abst.
		JP	01-204025		08/16/89		Abst.

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		Matumoto et al., "New Hybrid-Aligned Nematic Multicolor Liquid-Crystal Display," Oyo Buturi, Vol. 45, No. 1, pp. 853-856, 1976.					

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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Unique citation designation number. ² See attached Kinds of U.S. Patent Documents. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

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				Group Art Unit	AUG 25 2004 2871
				Examiner Name	Huyen Le Ngo
				Attorney Docket Number	0756-7221
Sheet	2	of	3	<i>PATENT & TRADEMARK</i>	

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		Number	Kind Code ² (if known)			
		4,965,017		Holmes et al.	10/23/90	
		5,013,137		Tsuboyama et al.	05/07/91	
		5,064,697		Takiguchi et al.	11/12/91	
		5,172,187		Brosig	12/15/92	
		5,194,973		Isogai et al.	03/16/93	
		5,250,214		Kanemoto et al.	10/05/93	
		5,200,238		McArdle et al.	04/06/93	
		4,596,446		Waters et al.	06/24/86	

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		Office ³	Number ⁴ (if known)			
		JP	52-063746		05/26/77	Full
		JP	64-004721		01/09/89	Abst.
		JP	63-228125		09/22/88	Abst.
		JP	64-055537		03/02/89	Abst.
		JP	64-059325		03/07/89	Abst.
		JP	64-059326		03/07/89	Abst.
		JP	64-059322		03/07/89	Abst.
		JP	64-059324		03/07/89	Abst.
		JP	64-059323		03/07/89	Abst.
		JP	64-059328		03/07/89	Abst.
		JP	64-059327		03/07/89	Abst.
		JP	04-149516		05/22/92	Abst.
		JP	02-287317		11/27/90	Abst.
		JP	06-018887		01/28/94	Abst.
		EP	0 376 030		12/1988	
		JP	3-276122		12/06/91	Full
		JP	52-037249		03/23/77	Full

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		Office ³	Number ⁴ (if known)				
		JP	64-091172		04/10/89		Full
		JP	2-118517		05/02/90		Full
		JP	04-140714		05/14/92		Abst.
		JP	51-037249		03/29/76		Abst.
		JP	03-031821		02/12/91		Full
		JP	02-287317		11/27/90		Full
		JP	05-158045		06/25/93		Abst.
		JP	04-355726		12/09/92		Abst.

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Examiner Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		M. Nishikawa et al., "Alignment Layers for Active Matrix LCD," The Technical Report of the Proceedings of the Institute of Electronics, Information and Communication Engineers, Vol. 91, No. 467, pp. 13-18, February 13, 1992.	

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